EXPORTING U.S. MANUFACTURED HOUSING

by Patrick MacAuley & Pat Smeller

Trade development

Factory-built housing has come a long way since its early trailer park days back in the 1950's. Dramatic advances in design and technology have transformed these once small, creaky single-sectioned mobile campers into attractive, spacious, multi-sectional family dwellings that anyone would be proud to call home.

In 1999, U.S. manufacturers exported $72 million in prefabricated homes and housing trailers to more than 60 countries, according to U.S. government statistics. Sales destinations included Japan, Canada, Mexico, Nigeria, Korea, Guatemala, Jamaica, the Netherlands, Great Britain, Germany and Australia. A recent export survey conducted by Automated Builder, a respected industry journal, showed that more than 10 U.S. companies had gross export sales of at least $500,000 during the past year. The same survey revealed a strong desire among America's professional homebuilders to expand into export markets.

Though export sales currently represent only a tiny fraction of the $15 billion U.S. manufactured housing industry, the potential in overseas markets is considerable. The Forest Products & Building Materials Division of the U.S. Department of Commerce believes that, with strategic planning and proper due diligence, U.S. companies can substantially increase U.S. export sales in several developed and emerging markets.

Housing is a highly-varied product, and this is reflected in the many model types being marketed by U.S. exporters of manufactured housing. While one company successfully exports kits for prefabricated "American-style subdivision" homes, another may find it more profitable to export log homes or steel metal-based housing. Markets — i.e. target customers — are just as varied as types of housing. Some companies are

CONCEPTS & TERMS

MANUFACTURING HOUSING CONCEPTS & TERMS

Nearly all houses built today in the United States contain some prefabricated components such as roof trusses, floor trusses, pre-hung doors, windows, etc. The site-built or stick-built housing industry has long realized that utilizing ready-made components for selected parts of the house results in a significant saving of time and money in overall construction.

PREFABRICATED HOUSES are assembled from components that are manufactured in an enclosed central production facility. The assembled structures are either fabricated in the factory into an almost-complete module (a modular house) or the components are transported for assembly to the construction site (panelized, pre-cut or log homes).

MODULAR STRUCTURES are the most sophisticated and complete of all types of prefabricated buildings, being about 95 percent complete when they leave the factory, complete with interior and exterior walls, wiring, plumbing, insulation, windows/doors, kitchen/bathroom appliances/fixtures, heating and cooling equipment, water heater and all other mechanical items. The entire set-up process usually takes only a few hours and all finish work on the building is completed in less than two weeks.

An important type of modular housing is **HUD-CODE MANUFACTURED HOUSING**, often called mobile homes. The construction and installation of these units are controlled by the Department of Housing and Urban Development's National Manufactured Housing Standard, the only national building code in the United States. (Excluded from this category are manufacturing housing units made to either state or local building codes, that are usually referred to as panelized or modular prefabs.) Manufactured housing units (mobile homes) are shipped as single-section units or as single-wide sections of multi-section structures. Most are built for housing purposes but some are made for light commercial use, such as offices, clinics, or classrooms.

PANELIZED BUILDINGS are the most popular type of prefabricated structure for both domestic and international sales because of ease of transportation via containers. Design flexibility, cost reduction advantages, and improvements in quality control are just some of the advantages of using this system for both housing and light commercial applications. Wall panels, some including doors and windows, are ready for assembly immediately after delivery to the building site. Addition of the roof and completion of the building exterior takes only a few days.

The **PRE-CUT BUILDING** is the most basic type of manufactured structure requiring the least amount of factory fabrication. All of the wooden structural members of a building are pre-cut at the factory with each component numbered or coded to key it to a set of assembly instructions or blueprints. The structural members, plus all of the other materials needed to build a structure such as sheathing, siding, roofing, windows, doors, etc., are then shipped to the customers building site. Manufacturers also produce factory-made Log Home kits and the Dome or Geodesic form that encloses the greatest amount of volume with the least amount of surface area.

trying to produce mass housing for ill-housed poor or disaster victims. Other companies produce housing intended for more affluent customers or for Americans living abroad. Regardless of the housing type and clientele, doing one's homework, especially for new-to-market exporters, is essential.

WOOD & STEEL HOUSING

Though wood-based houses comprise the overwhelming majority of residential, single-family housing in the U.S., they have had a much more difficult time gaining acceptance in other parts of the world. For this reason, several U.S. companies have been experimenting with steel-based housing designed specifically for export markets. Steel-based housing is not common in the U.S. due to the high cost of retraining labor. However, considerable research and development has been completed, and several companies have been marketing components as well as complete homes.

The U.S. government and several industry organizations have undertaken an organized effort to increase exports and to encourage consumption of steel-based housing abroad. One purpose of this effort is to assist the U.S. steel industry, which has heavy competition from imported raw steel. This initiative is especially focused on countries such as China, that have ample steel but an aversion to wood-framed housing.

Although pre-engineered metal buildings are very common for non-residential buildings such as warehouses and gas stations, they are not common in single-family housing in the United States. Most of the steel alternatives to wooden housing would simply replace wooden two-by-four studs with galvanized steel studs of the same size. This would allow use of most other building products with little or no modification, and steel-framed homes would look virtually identical to consumers.

An alternative to steel housing utilizes load-bearing metal panels instead of

two-by-four framing. At least one U.S. company is marketing these homes to tropical, less-developed countries that are hesitant to use wood because of termite and cultural considerations. Since those countries do not have a history of two-by-four construction, it is believed that modular panels are more likely to win acceptance.

SELECTED COUNTRY MARKETS

Demand for manufactured housing in any given country often depends on several factors, including price competitiveness, quality, and marketing efforts. Japan, Canada and Mexico, the top three trading partners, of the United States have been the best international markets for manufactured housing in recent years. China, the U.S.'s fourth largest trading partner, has been included due to the tremendous potential of its market. The following list of country markets is by no means exhaustive.

JAPAN

The Japanese housing market is of leading interest to U.S. housing manufacturers because it is large, affluent and receptive to wood-based housing. Japanese homes have traditionally featured post-and-beam construction rather than U.S.-style two-by-four construction, but there is considerable interest in two-by-four construction, and about 16 percent of new Japanese homes use this method. The Japanese Ministry of Construction and other agencies have been working with the United States in a joint effort to reduce Japanese housing costs by removing unnecessary barriers to U.S. products and technology. A principal achievement has been to streamline the certification process for U.S. prefabricated housing. In addition, artificial restrictions on some of the U.S. products typically found in prefabricated housing have been eased.

CANADA

Canada is among the best markets for U.S. manufactured prefabricated housing, due to its geographic proximity and similar consumer tastes. However, Canada is the home to many of the world's most competitive manufactured housing companies, particularly in Quebec Province. Currently, the exchange rate of the Canadian dollar to the U.S. dollar is unfavorable for U.S. housing manufacturers selling to Canada. Even so, exports in 1999 were $16 million, and if the Canadian dollar strengthened, this amount could surge.

MEXICO

Mexico, is a leading trading partner with the U.S. and a member of the North American Free Trade Agreement (NAFTA). Mexico is a natural market for prefabricated housing. In 1998, the U.S. accounted for 88 percent of Mexico's exports and provided 74 percent of Mexico's imports. Both countries' exports to each other set records in 1997 and 1998. U.S. companies new to exporting can keep business development costs down by taking advantage of Mexico's close proximity to the U.S. Significant numbers of American retirees, major consumers of prefabricated homes, reside in Mexico. Eighty-five percent of U.S. goods now enter Mexico duty-free. Remaining tariffs on U.S. goods are between 5 and 20 percent. For NAFTA exporters, tariffs will be phased out by January 2009 or earlier.

New-to-export U.S. firms may wish to start with Monterrey, the capital of the northern state of Nuevo León on the U.S.-Mexican border with Texas. The economic climate has been improving at such a rate that local business representatives have expressed concern over the lack of housing for workers and the effect that might have on production.

CHINA

At this time, exports of prefabricated housing and building products generally are at fairly low levels. However, given China's vast potential, the U.S. government and private business are together making considerable efforts to promote U.S. goods and services in this market. Some of the special considerations that are faced by prefabricated housing manufacturers are: unfamiliarity with U.S. construction techniques, Chinese government policies discouraging wood-based housing and the vast disparity between U.S. and Chinese labor cost. The policies discouraging use of wood framing are being addressed by the China Housing Initiative while some

DAS for Basic Industries, Alan Bowser, led a delegation of U.S. housing companies to China. The mission resulted in several million dollars in sales.

Photo courtesy of CS Shanghai

Photo courtesy of NAHB

This year's International Housing Exhibition of the NAHB attracted 72,000 visitors, 7,000 of which were foreign representatives. The 2001 exhibition will be held in Atlanta in February.

companies are skirting the problem by considering steel-framed housing. Because of the much lower wage rates in China, several companies plan to eventually do much of the panel manufacturing in China, although they would presumably bring in much of the lumber and components from the U.S.

China's rapid economic growth is enabling its citizens to improve their living conditions, and, over the next generation, China is expected to invest hundreds of billions of dollars in new housing. To empower Chinese consumers to benefit from U.S. housing technology, the U.S. and Chinese governments have formed the U.S.-China Residential Building Council (RBC). As part of the initiative, there have been two cabinet-level meetings of this council and an advisory council of businesses and other organizations from the U.S. and China have also met. Several trade missions, both to China and the U.S., have been conducted and the initiative is gathering momentum.

Recognizing China's growing demand for high-quality building materials and technology, the National Association of Home Builders (NAHB), Commerce's Forest Products and Building Materials Division, and the Chinese Ministry of Construction are organizing a conference to coincide with China Build 2001 (Nov. 6-9, 2001 in Shanghai), China's premier construction and building materials trade event. U.S. companies can take advantage of an NAHB-organized U.S. building technologies pavilion, which can serve as an excellent springboard into the lucrative Chinese market. Of course, Shanghai, with its booming economy and population of 9.4 million, itself holds tremendous potential for new-to-market U.S. firms.

CHINA HOUSING INITIATIVE

The U.S.-China Housing Initiative was launched during President Clinton's trip to China in July 1998. The President recognized the housing needs of China and the ability of the U.S. housing industry to provide high quality goods and services by expressing his support of a cooperative approach between the United States and China in the realm of affordable, quality housing.

The U.S.-China RBC was formally established by the Memorandum of Understanding between the Ministry of Construction of the People's Republic of China and the Departments of Commerce and Housing and Urban Development of the United States to formulate and implement the U.S.-China Housing Initiative.

The Council's primary objectives are to focus on developing the residential housing markets, residential construction and rehabilitation and housing finance systems in China. Members of the Council consist of U.S. and Chinese representatives from construction, housing policy and finance sectors. They assist China in generating and expanding affordable housing markets by assimilating American building technology into the construction of Chinese homes.

In President Clinton's announcement, he called for the Initiative to promote new technologies and energy-efficient materials to build sturdy and affordable homes. U.S. resources and experience in the housing industry are essential in order to support the Chinese Government housing reforms. The U.S.-China Housing Initiative is focused on the broad categories of housing construction and housing finance.

As China's housing reforms advance, citizens have greater freedom of choice that stimulates demand for quality housing, building materials and fixtures. The increased demand for private housing generates an unparalleled opportunity for U.S. companies to expand into China's growing housing market. The U.S.-China Housing Initiative is meant to facilitate China's housing reform goals and generate U.S. exports of building materials to China. Regulatory reform in land pricing and ownership, building codes and standards, and other areas is critical to widespread home-ownership and the development of a vital housing industry.

The U.S.-China Housing Initiative has spurred many U.S. firms to enter into or expand their business dealings in the Chinese housing market. The Chinese have expressed a keen interest in importing U.S. products making up structural systems, mechanical systems, electrical systems, decorative goods,

and especially energy-efficient, environmentally-friendly products.

The market potential for housing construction and building materials in China is enormous. During the next three years, Government officials plan to increase spending on new homes by 15 percent. The elimination of state subsidies for housing, the establishment of a low-interest loan fund and local tax breaks for home purchases have led to greater demand for affordable housing.

State economic reforms designated the building materials industry as an engine of economic growth in 2000. Housing reforms are expected to continue and to positively affect GDP by stimulating the consumption of home furnishings and fixtures, providing more jobs and strengthening demand for infrastructure to support new housing developments.

Prefabricated housing has been gaining in popularity in the United States and has also been expanding into overseas markets. This is mostly because of lower transportation costs and improvements in styling and engineering technology. Acceptance of American-style housing and prefabricated homes is also contributing to the growth of the export market. All of these factors, taken together, create more lucrative opportunities for exporting prefabricated homes. In order to maximize export opportunities, manufacturers can take advantage of services provided by trade associations and the Department of Commerce to improve their market research and satisfy diverse world-wide markets. ■

The International Trade Administration (ITA) of the U.S. Department of Commerce is an excellent starting point for any U.S. business interested in exploring international markets. U.S. companies are highly encouraged to explore the vast wealth of information contained in ITA's website www.ita.doc.gov. Two important departments within ITA that every exporter or potential exporter should become acquainted are:

Trade Development (TD) This is the place for industry specific needs. TD's industry expertise, spans the gamut of U.S. business sectors — from basic manufacturing to high technology and service exports. For exporters and potential exporters of prefabricated housing, contact the Forest Products & Building Materials Division of Basic Industries.

The U.S. & Foreign Commercial Service (US&FCS) The overseas arm of the Department of Commerce, US&FCS's more than 1,700 professionals promote and protect U.S. business interests around the world. The Commercial Service's worldwide network includes offices in more than 100 U.S. cities and at more than 80 overseas posts. This presence brings professional trade assistance to U.S. firms both domestically and in more than eighty cities internationally.

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